

## PROJECT ADMINISTRATION DATA SHEET



ORIGINAL



REVISION NO. \_\_\_\_\_

Project No. A-3422

GTRI/STP

DATE

11/23/82Project Director: Joe Newton~~XXXX~~ School/Lab

EML

Sponsor: Applied Research, Inc.Huntsville, AL 35804Type Agreement: P.O. 5087 under Contract No. DAAH01-82-D-A002, D.O. No. 16Award Period: From 10/18/82 To 12/10/82 (Performance) 1/10/83 (Reports)Sponsor Amount: Total Estimated: \$ 14,423 Funded: \$ 14,423

Cost Sharing Amount: \$ \_\_\_\_\_ Cost Sharing No: \_\_\_\_\_

Title: DAFFR Sensory Fire Control/Launcher Hardware & Software System Integration

## ADMINISTRATIVE DATA

OCA Contact

Linda H. Bowman x 4820

## 1) Sponsor Technical Contact:

Harold B. JeffreysPresidentApplied Research, Inc.P. O. Box 194Huntsville, AL 35804

## 2) Sponsor Admin/Contractual Matters:

Chuck MillerPurchasing AgentApplied Research, Inc.P. O. Box 194Huntsville, AL 35804(205) 533-6987Defense Priority Rating: noneMilitary Security Classification: SECRET

(or) Company/Industrial Proprietary: \_\_\_\_\_

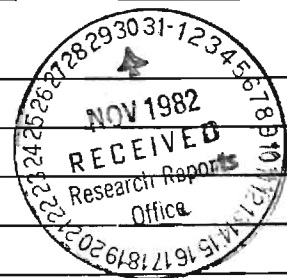
## RESTRICTIONS

See Attached Gov't Supplemental Information Sheet for Additional Requirements.

Travel: Foreign travel must have prior approval — Contact OCA in each case. Domestic travel requires sponsor approval where total will exceed greater of \$500 or 125% of approved proposal budget category.

Equipment: Title vests with Gov't; however, none proposed

## COMMENTS:



## COPIES TO:

Research Administrative Network

Research Property Management

Accounting

Procurement/EES Supply Services

Research Security Services

~~Reports Coordinator (OCA)~~

GTRI

Library

Research Communications (2)

Project File

Other

Proj. Dir.

Other

SPONSORED PROJECT TERMINATION SHEETDate 2/14/83

Project Title: DAFFR Sensory Fire Control/Launcher Hardware &amp; Software

Project No: A-3422

Project Director: Joe M. Newton

Sponsor: Applied Research, Inc.

Effective Termination Date: 12/10/82Clearance of Accounting Charges: 1/10/83

Grant/Contract Closeout Actions Remaining:

- ☐ Final Invoice and ~~Closing Documents~~
- ☐ Final Fiscal Report
- ☐ Final Report of Inventions
- ☐ Govt. Property Inventory & Related Certificate
- ☐ Classified Material Certificate
- ☐ Other \_\_\_\_\_

Contractor's representative, Chuck Miller, states that no Final Invoice or other documents are required to close this contract. Mr. Miller stated he had checked this with his contract manager.

Assigned to: EML (School/Laboratory)COPIES TO:

Administrative Coordinator  
Research Property Management  
Accounting  
Procurement/EES Supply Services

Research Security Services  
Reports Coordinator (OCA)  
Legal Services (OCA)  
Library

EES Public Relations (2)  
Computer Input  
Project File  
Other Proj/in

FINAL TECHNICAL REPORT  
and  
Cost and Performance Report One

Project A-3422

DAFFR SENSOR/FIRE CONTROL/LAUNCHER HARDWARE  
AND SOFTWARE SYSTEM INTEGRATION

PHASE I AND II TEST PREPARATION/FIELD TEST SUPPORT

JANUARY 1983

J. M. Newton  
Avery Davis

Contract No. DAAH01-82-D-A002  
Subcontract No. D. O. 16 - P. O. 5087  
EES Project A-3422

Prepared for

Applied Research, Inc.  
P. O. Box 194  
Huntsville, Alabama 35804

Prepared by

Georgia Institute of Technology  
Engineering Experiment Station  
Electromagnetics Laboratory  
Atlanta, Georgia 30332

## TABLE OF CONTENT

Section		Page
1.0	INTRODUCTION	1
2.0	DAFFR SENSOR INTEGRATION	1
3.0	HARDWARE AND SOFTWARE OPERATION	1
4.0	CONCLUSIONS	2

## 1.0 INTRODUCTION

During this contract Georgia Tech performed DAFFR sensor integration and DAFFR launcher hardware and software system integration in preparation for the DAFFR field test program. In addition, Georgia Tech prepared test plans to support field activities during Phase I testing; these were delivered to Applied Research in August 1982, for inclusion in the general test plan.

## 2.0 DAFFR SENSOR INTEGRATION

On September 31, 1982 Avery Davis and Noel McCormick transported the DAFFR radar sensor to the Redstone Arsenal where they installed it in the DAFFR rocket launcher. Circumstances did not permit the equipment to be checked out at that time; this was done later by Intergraph and Applied Research. Results from these checkouts demonstrated that the hardware and software portions of the radar system were performing as expected.

Other support during this period included preparing written and pictorial material, about the DAFFR radar, to aid in operating the system. These were delivered directly to the Army.

## 3.0 HARDWARE AND SOFTWARE OPERATION

During tests conducted at the Redstone Arsenal, the software and hardware of the DAFFR sensor demonstrated operational levels commensurate with the anticipated values for a prototype system. The most severe problem that has been encountered in testing the radar system is the tendency for the radar to lose track shortly after launch. The reason for the signal loss has not been isolated but a couple of possible explanations are: 1) clutter from the radar fence and/or launcher causes destructive interference to the radar signal which mask the rocket's signature, or 2) a range timing problem exists with the digital range tracking circuits which causes the radar's tracking range to move off the actual rocket range. Further testing will be done to rectify this problem.

#### 4.0 CONCLUSIONS

All requirements of this contract have been executed and the DAFFR radar system supplied by Georgia Tech is in good working order. There are several small problems that will be resolved in the near future as the system gets more use and as the operators become more familiar with the radar.

#### 5.0 COST INFORMATION

The following charges have been incurred against this contract during the performance period.

Personal Services	\$ 8,106.57
Materials and Supplies	0.00
Travel	0.00
Documentation	308.10
Fringe Benefits	1,409.33
Overhead	4,491.50
-----	
TOTAL	\$14,315.50
Contract Amount	14,423.00
Difference	+107.50